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ORCHID STUDIES, IX

BY

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MISCELLANEOUS OBSERVATIONS

Habenaria graciliscapa *Rodrigues* Gen. & Sp. Orch. Nov. 1 (1877) 155 — Cogniaux in Martius Fl. Bras. 3, pt. 4 (1893) 71, t. 14, fig. I — Kränzlin Orch. Gen. & Sp. 1 (1898) 294.

Habenaria graciliscapa is an interesting addition to the orchid flora of both Argentina and Uruguay from which countries it has been sent to me by Dr. H. R. Descole and Dr. Bernardo Rosengurtt.

The orchids of Argentina and Uruguay are not very great in number when contrasted with those of other areas in South America; seldom, however, does a collection from these countries come in for determination that does not contain some rare, noteworthy or new orchid. It is quite possible that this will continue to be true for many years.

ARGENTINA: quebrada de la mina, Fiambalá, Tinogasta, Catamarca, a 2000 metros altitudo, 13 febrero 1930, *Schreiter 6351.*

URUGUAY: en arenas maritimas, Laguna Negra, Rocha, 20 marzo 1938, *Rosengurtt B2611.*

Bipinnula polysyka *Kränzlin* in Engl. Bot. Jahrb. 9 (1887) 317; Orch. Gen. & Sp. 2 (1903) 25, t. 1, fig.

E — Cogniaux in Martius Fl. Bras. 3, pt. 4 (1893) 110, t. 21, fig. III.

Dr. Bernardo Rosengurtt has sent to me a good specimen of this rare plant for determination and it calls to attention the differences from *Bipinnula Gibertii* Reichb. f. which I thought it was at first glance.

The chief character used by *Kränzlin* to separate *Bipinnula polysyka* from *B. Gibertii* in his key, the dentate or papillose dorsal sepal, is slightly evident on only one of the plants available whereas on all of the others the dorsal sepal is entire. However, the two "species" may be separated by means of lip-characters, although a more complete series of specimens may show *B. polysyka* Kränzl. to be only a variety of *B. Gibertii* Reichb. f.

Uruguay: dry sandy fields, Cerro, Departamento de Montevideo, November 1925, *Herter 442b* (*79697*) (in Gray Herbarium); Monzón-Heber, Juan Jackson, Departamento Soriano, noviembre 1937, *Gallinal, Aragone, Bergalli, Campal & Rosengurtt 779;* Palleros, Río Negro, Departamento Cerro Largo, diciembre 1937, *Gallinal et al 1897*.

Erythrodes dichopetala (*Kränzl.*) *L. O. Williams comb. nov.*

Physurus dichopetalus Kränzlin in Kungl. Svenska Vet.-Akad. Handl. 46 (1911) 41, t. 7, fig. 5.

I have seen the following specimen:

Argentina: Posadas, Misiones, January 10, 1924, *Hauman 24/476*.

Malaxis Margaretae (*F. Brown*) *L. O. Williams comb. nov.*

Mycrostylis Margaretae F. Brown in B. P. Bishop Mus. Bull. 84 (1931) 171, fig. 18, b.

Austral Islands: *Stokes 105*.

Epidendrum Cogniauxii *L. O. Williams nom. nov.*
Epidendrum Christii Cogniaux in Urban Symb. Antill. 6 (1910) 695, non *Epidendrum Christi* Reichenbach filius, 1876.

It is with pleasure that this West Indian Epidendrum is renamed for Cogniaux who described it originally.

Grammatophyllum elegans *Reichenbach filius* in Gard. Chron. n.s. 18 (1882) 776 — Schlechter in Orchis 9 (1915) 107.

The plant described from the "South Sea Islands" by Reichenbach as *Grammatophyllum elegans* seems not to have been rediscovered until recently. Mr. A. Meebold collected a specimen of Grammatophyllum in Fiji which seems to answer the description of the plant given by Reichenbach.

A supplementary description based on the specimen in hand may be of interest. The specimen has a single leaf and a single flower.

Leaf elliptic-oblong, acute, about 30 cm. long and 5.5 cm. broad. Sepals about 3 cm. long, 1.5–2 cm. broad. Petals about 3 cm. long and 1.5 cm. broad. Lip about 2 cm. long and 2 cm. broad, with a strongly 3-ribbed median callus extending from the base to the middle of the lip or beyond.

In my recent account of the orchids of Fiji *Grammatophyllum elegans* was completely overlooked.

FIJI: Suva, January 1937, *Meebold 21954* (in Herb. Bishop Museum, Honolulu).

Dendrobium strongylanthum *Reichenbach filius* in Gard. Chron. n.s. 9 (1878) 462 — Hooker filius Fl. Brit. India 5 (1890) 716 — Kränzlin in Engl. Pflanzenr. IV. 50. II. B. 21 (1910) 81.

This peculiar species of Dendrobium, which was described by Reichenbach and indirectly said to be a native of India, is well represented by the two specimens cited below.

Schlechter has overlooked the species in his Orch. Sino-Jap. Prodr. although Kränzlin had cited a specimen from Yunnan, China (*Henry 12962*) in his monograph of Dendrobium.

China: epiphyte, between Menglien and Yu Tang Po, between Tengyueh and Lungling, Yunnan Province, October 20, 1922, *Rock 7104;* epiphyte, camp at Ya Tau Pa, between Tengyueh and Lungling, Yunnan Province, October 21, 1922, *Rock 7116.*

In addition to the two specimens cited above there is a horticultural specimen in the Ames Herbarium which was procured from Sander with whom it flowered in 1899. This plant is said to have been collected by *Micholitz* in Burma earlier the same year.

Chroniochilus Godeffroyanus (*Reichb.f.*) *L.O. Williams* in Bot. Mus. Leafl. Harv. Univ. 5 (1938) 138, as *C. Godeffroyanum* by error.

Thrixspermum Godeffroyanum Reichenbach filius Xen. Orch. 2 (1867) 122; in Seemann Fl. Vit. (1868) 297, t. 90.

Sarcochilus Godeffroyanus Bentham & Hooker filius ex Drake Ill. Fl. Ins. Pacif. (1886) 310.

Chiloschista Godeffroyana Schlechter Orch. Sino-Jap. Prodr. (1919) 275.

A character in the flowers of *Chroniochilus Godeffroyanus*, which seems previously to have escaped attention, was noticed while dissecting the flowers of a specimen collected in Fiji by Mr. E. H. Bryan, Jr. (*Bryan 458*). The anther is provided with a pair of lateral antennae (one antenna on either sac of the anther) which seem to be slightly glandular at the apex. The antennae are about the same length as the column and appear to lie parallel to it, reaching the point of attachment of the perianth parts to the column. The function of the antennae is not known.

Sarcanthus nagarensis *Reichenbach filius* in Seemann Fl. Vit. (1868) 298—L.O.Williams in Bot. Mus. Leafl. Harv. Univ. 5 (1938) 140.

With some doubt that the genus Sarcanthus occurred in Polynesia it was included in my account of the orchids of Fiji with the thought that the species probably belonged to some other genus. Since that time Dr. C. Keissler has been kind enough to send to me a copy of Reichenbach's analytical sketches of the species as well as a drawing of the type and, in addition, I have seen a specimen of the species which was collected in Fiji by Mr. E. H. Bryan, Jr. These records and my specimen lead me to believe that the plant is a species of Sarcanthus and must be one of the largest species of the genus.

The following short amplification of Reichenbach's description, which was based on an inflorescence only, may be of use.

Large lianas, 3–4 meters tall (fide Bryan), the apical part of the stem up to 2 cm. in diameter. Leaves distichous, ligulate to lanceolate-ligulate, obtuse, up to 25 cm. long and 6 cm. broad, coriaceous, apex only slightly or not at all bilobed.

Fiji: Yathata, climbing over walls of ancient fortified town, summit of Na Koro Levu, liana 3–4 meters high, flower yellow-green and cream, at about 265 meters altitude, October 1, 1924, *Bryan 594*.

HORNEOPHYTON, A NECESSARY CHANGE OF NAME FOR HORNEA

BY

ELSO S. BARGHOORN, JR. AND WILLIAM C. DARRAH

IN 1920, Robert Kidston and William H. Lang described under the name of ***Hornea Lignieri*** a remarkable fossil plant from the Middle Devonian Rhynie Chert of Scotland. Morphologists have regarded this fossil as of great phylogenetic significance so that it is very well known; indeed it is so well known that it appears in elementary textbooks of botany and geology.

Recently, during the progress of working over a newly acquired collection of specimens of woods of existing angiosperms received by the Biological Laboratories of Harvard University, it was discovered that the name ***Hornea*** had also been used for a sapindaceous tree. Reference to the original description of this species showed that it belonged to a monotypic genus which had been described by J. G. Baker in 1877. The prior use of the name ***Hornea*** in the Sapindaceae thus preoccupies the generic designation for the fossil psilophyte, ***Hornea Lignieri.*** According to the International Rules of Botanical Nomenclature, it is necessary to give a new name to the fossil plant because of a prior use of the generic name ***Hornea.*** Interestingly enough, the fossil form is much better known and is, by far, more familiar than the extant Hornea which occurs in Mauritius.

The original descriptions of ***Hornea mauritiana*** Baker and ***Hornea Lignieri*** Kidston and Lang are here copied.

Hornea *Baker.* 1877. Flora of Mauritius and the Seychelles. London. p. 59.

"Flowers polygamous. Sepals 5, round, much imbricated, silky on the back, naked on the face, the two outer smallest. Petals 5, just like the inner sepals in shape and vestiture, but with a densely pilose emarginate scale at the claw. Disk cup-shaped, irregularly lobed, enclosing the stamens and ovary. Stamens 20–24, inserted inside the disk, glabrous; filaments short, filiform; anthers minute, oblong. Ovary sessile, densely pilose, 2-celled, with a single ovule in each cell from the axis below the middle; style short, simple, pilose; stigma capitate. Fruit a 2-lobed velvety samara, with a broad wing. Seed globose, black. Endemic and monotypic.

Hornea mauritiana *Baker.* l.c. p. 59.

"A shrub or tree, with branchlets clothed with brownish silky hairs. Leaves short-petioled, equally pinnate; leaflets 4, sessile, oblong, obtuse, glabrous, coriaceous, venulose, 2–4 in. long, oblique at the base. Flowers in axillary and terminal panicles with silky ascending branches; pedicels very short. Petals and inner sepals $\frac{1}{4}$ in. long. Lobes of samara rhomboid, erecto-patent, an inch long, above $\frac{1}{2}$ in. broad, brown-velvety, rigidly coriaceous, the wing as broad as the cell. *Thouinia? mauritiana*, Bojer, *Hort. Maur.* 1837. 56 (name only)."

It should be noted that *Thouinia* (?) *mauritiana* Bojer has no standing because Bojer's work was merely an enumeration of species, not accompanied by descriptions. The monotypic genus *Hornea* is taxonomically closely allied to *Thouinia*, but has been considered distinct since the publication of Baker's Flora.

Hornea *Kidston & Lang.* 1920. Trans. Roy. Soc. Edinb. vol. 52. p. 616.

"Plants rootless and leafless. Stems arising from protocorm-like rhizomes, dichotomously branched. Sporangia terminal on ultimate branches, with a sterile columella projecting from the base into the sporangial cavity, and cuticularized spores developed in tetrads."

Hornea Lignieri *Kidston & Lang.* l.c. p. 616.

"Plant small, consisting of a lobed rhizome from which arise stems which branch dichotomously and range from 2 mm. in diameter downwards. Stele of stem with a zone of phloem surrounding the xylem composed of small central and wider peripheral tracheides. Sporangia cylindrical, terminal on branches, indehiscent, with thick wall composed of thickened epidermis, thin-walled tissue, and persistent tapetal layer. Sterile columella composed of thin-walled elongated cells extending from base to near top of sporangium. Homosporous. Spores about 50 μ. in diameter."

Locality—Muir of Rhynie, Aberdeenshire, Scotland.

Horizon—Old Red Sandstone, Middle Devonian.

There are no synonyms for this monotypic genus. The fossil plant is a member of the Rhyniaceae, in the order Psilophytales.

Inasmuch as the fossil "*Hornea*" is both better known and of much greater importance to the botanist and paleobotanist than the sapindaceous genus of the same name, it is unfortunate that a duplication of names has occurred. However, we propose to change the name of the Devonian psilophyte, hitherto known as *Hornea Lignieri* to **Horneophyton Lignieri.** This new name reduces possible confusion to a minimum. The root *Horneo* involves but slight orthographic change, and the suffix *phyton* is very frequently used in the naming of extinct plants—particularly those found in rocks of Devonian age.

Horneophyton *nom. nov.*

Hornea Kidston & Lang, non Baker.

Horneophyton Lignieri (*Kidst. & Lang*) *comb. nov.*

Hornea Lignieri Kidston & Lang.